DOCUMENT RESUME

ED 470 168 IR 021 608

AUTHOR	Harding, Wayne M.; Formica, Scott W.; Giguere, Paul J.
TITLE	Web-Based Continuing Education: Models and Methodologies.
PUB DATE	2001-11-00
NOTE	6p.; In: Annual Proceedings of Selected Research and Development [and] Practice Papers Presented at the National Convention of the Association for Educational Communications and Technology (24th, Atlanta, GA, November 8-12, 2001). Volumes 1-2; see IR 021 504.
PUB TYPE	Reports - Descriptive (141) -- Speeches/Meeting Papers (150)
EDRS PRICE	EDRS Price MF01/PC01 Plus Postage.
DESCRIPTORS	Computer Mediated Communication; *Continuing Education; *Drug Abuse; Middle Schools; Online Systems; *Professional Development; *Professional Personnel; Resource Allocation; *Safety; Training; Violence; *Web Based Instruction

ABSTRACT

In 1998, the Department of Education implemented "principles of effectiveness" requiring that all Safe and Drug-Free Schools and Communities (SDFSCP)-funded programs be research-based. To help schools identify and adopt research-based drug and violence prevention strategies, the 1999 Safe and Drug-Free School appropriation of $566 million included $35 million for the first year of a new Middle School Drug Prevention and School Safety Program Coordinator initiative. This new initiative supports the hiring and training of full-time Middle School Coordinators (MSCs) to oversee implementation of drug prevention and school safety programs for students. The goal of the Training Center is to work with MSCs through face-to-face trainings and Web-based continuing education to enhance their understanding of research-based programs and equip them with the skills necessary to identify research-based strategies based on an assessment of needs in their district. Three online continuing education events for the Middle School Drug Prevention and School Safety Coordinators were held between April and June 2001. The purpose of these events was to provide a menu of skill-based, interactive learning activities that supplement the core training workshop. One hundred and eighty-six of the 634 MSCs (29%) who participated in the 5-day core training workshops registered for at least 1 of the 3 online events. This report summarizes evaluation findings across the three online events. (Contains 24 references.) (AEF)

Reproductions supplied by EDRS are the best that can be made
from the original document.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

P. Harris

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

1

Web-Based Continuing Education: Models and Methodologies

Wayne M. Harding
Scott W. Formica
Social Science & Evaluation, Inc. (SSRE)

Paul J. Giguere
Education Development Center, Inc. (EDC)

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

ED 470 168

Introduction

In 1998, the Department of Education implemented "principles of effectiveness" requiring that all Safe and Drug-Free Schools and Communities (SDFSCP)-funded programs be research-based. To help schools identify and adopt research-based drug and violence prevention strategies, the 1999 Safe and Drug-Free School appropriation of $566 million included $35 million for the first year of a new Middle School Drug Prevention and School Safety Program Coordinator initiative.

This new initiative supports the hiring and training of full-time Middle School Coordinators (MSCs) to oversee implementation of drug prevention and school safety programs for students. Specifically, MSCs are expected to:

- Identify research-based drug and violence prevention strategies.
- Assist schools in adopting the most successful strategies.
- Develop, conduct, and analyze assessments of school crime and drug problems.
- Work with community agencies and organizations to ensure students' needs are met.
- Encourage parents and students to participate in the identification and implementation of research-based prevention efforts.
- Assist in the development and implementation of evaluation strategies.
- Identify additional funding sources for prevention and school safety programming.
- Provide state education agencies feedback on successful programs and activities.
- Coordinate with student assistance and employee assistance programs.

To help recently hired Middle School Drug Prevention and School Safety Coordinators meet the roles and responsibilities of their new jobs, the U. S. Department of Education, Safe and Drug-Free Schools contracted with Education Development Center (EDC) and its partner Social Science Research (SSRE) to create a national center for training and assistance.

Schools and communities face an urgent challenge to design effective solutions to the complex problems of violence, alcohol, tobacco, and other drug use. To assist schools in the selection and implementation of effective prevention programs that are responsive to their needs, the U. S. Department of Education has undertaken several initiatives designed to enhance schools' understanding of what works and expand the inventory of effective programs. Among these initiatives is the Safe and Drug-Free Schools Middle School Drug Prevention and School Safety Coordinator Program, which supports the recruiting, hiring, and training of one or more full-time staff for three years to guide the implementation of drug prevention and school safety programs for middle school students.

A well-trained, full-time coordinator who is familiar with the research on effective prevention programming and who bases programming on sound planning that involves assessment, measurable goals and objectives, effective research-based strategies, and evaluation, should be able to implement prevention programs that better meet the needs of the students in their schools.

Coordinators, however, face several challenges to implementing effective prevention programs: determining which strategies and programs are effective at reducing substance use and violence among young adolescents, monitoring program activities implemented in the school; community members who do not believe

IR021608

BEST COPY AVAILABLE

there are drug problems among their youth; and other school district priorities that-while they may be desirable for other reasons may interfere with prevention efforts.

The goal of the Training Center is to work with middle school coordinators through face-to-face trainings and web-based continuing education to enhance their understanding of research-based programs and equip them with the skills necessary to identify research-based strategies based on an assessment of needs in their district.

The U.S. Department of Education's Safe and Drug-Free Schools and Communities Program (SDFSCP), funded under Title IV of the improving America's Schools Act of 1994, provides funds for virtually every school district in America to support drug and violence prevention programs.

Background

Three online continuing education events for United States Department of Education Middle School Drug Prevention and School Safety Coordinators were held between April and June 2001. The purpose of these events was to provide a menu of skill-based, interactive learning activities that supplement the core training workshop (see Harding and Formica 2000).

One hundred and eighty-six (186) of the 634 MSCs (29%) who participated in the five-day core training workshops registered for at least one of the three online events. Other events will be offered in the future.

This report summarizes evaluation findings across the three online events. Separate reports presenting evaluation findings from each of the events are also available (see Harding and Formica 2001a, 2001b; Formica and Harding 2001).

Goals and Content of the Online Events

The three continuing education online events were intended to: (1) provide support for the implementation of best practices that enable organizational change, (2) build on the foundation established by the five-day core training, and (3) foster the exchange of information and ideas that can transfer knowledge into practice.

Each of the continuing education online events is designed and sequenced to assist MSCs in addressing a set of critical factors for the successful implementation of effective prevention programs: (1) assessing local needs and assets, (2) designing programs to meet desired results, using measurable goals, (3) selecting and implementing programs that are based on research, and (4) evaluating and refining program efforts.

The first online continuing education event, "Using Existing Data in Your Needs Assessment," was designed to help MSCs locate and use available local, state, and national data to determine drug and violence prevention priorities and select prevention programs for their schools and communities.

The second continuing education event, "Identifying Priorities and Strategies for Your Prevention Initiative," was designed to facilitate the development of a comprehensive prevention plan. This event targeted MSCs who had collected information about local needs and were in the process of collaborating with school and community partners to translate community data into prevention priorities and long-term outcome statements, and to identify research-based strategies that will help achieve those outcomes.

The third continuing education event, "Promoting Prevention Through School-Community Partnerships," was designed to provide MSCs with tools and resources to build school-community partnerships that will support and enhance their overall prevention initiative.

Organization and Structure of the Online Events

Each of the online events consisted of seven components: (1) an introduction, (2) a set of clearly defined skills and strategies to be addressed, (3) a set of methods, materials, and timelines, (4) structured activities, (5) discussion areas, (6) an event summary, and (7) client self-assessment and evaluation surveys. The models used to structure the events included:

- *Library Model*: This includes access to online resources such as journals, reading lists, websites, and other subject-related sites rich in relevant information
- *Textbook Model*: This model includes the use of course and lecture, slide presentations, and other class-related documents in various media formats.

- *Computer-mediated Communication Model (CMC)*: This model features collaborative learning for communication and eliciting feedback through the use of asynchronous and synchronous interaction with a facilitator or moderator.
- *Virtual Classroom Model*: This model includes the three aforementioned models plus additional elements of interactive, computer-based instruction such as simulations, games, and various forms of synchronous interaction.

These models were used in various combinations for each event with the predominate mix being that of the library, textbook, and CMC models.

Evaluation Methods

Coordinators were asked to complete a post-event online survey. These surveys asked MSCs to provide demographic information, rate the overall online events and the different aspects of the events such as the quality and usefulness of the information provided, answer true/false knowledge items about event content, and answer self-report knowledge gain items. The surveys also included several open-ended items that allowed coordinators to report the most and least helpful features of the overall events and to write any additional comments or suggestions.

For the purposes of this summary report, statistical analyses were run on the data collected from the three different continuing education online events to determine whether or not there were any significant differences in the responses given by the coordinators. Results of these analyses (ANOVAs) support combining responses across all three online events. Additional analyses were conducted to determine whether any differences existed between active participants and auditors, and whether participation in multiple events was more beneficial that participation in a single event.

All instruments used to evaluate the events were submitted to the Office of Management Budget (OMB) prior to the events to receive approval under the 1800-0011 Master Plan for Customer Surveys and Focus Groups.

Results & Discussion

In general, results concerning participants' satisfaction with the three five-day continuing education online events were very positive. On a web-based post-event survey completed after participation in each of the online events, coordinators were asked to rate their overall satisfaction with the online events on a 5-point scale: Very Dissatisfied, Somewhat Dissatisfied, Neutral, Somewhat Satisfied, and Very Satisfied. Eighty-two percent (82%) indicated that they were either "Very Satisfied" (42%) or "Somewhat Satisfied" (40%) with the online events. Participants were also asked to indicate whether or not they would recommend the online events to other MSCs, how much new information/ideas they received through participation in the events, and the usefulness of the information discussed during the online events. These results were also very positive. Eighty-eight percent indicated that they would either "Strongly Recommend" (46%) or "Recommend" (42%) the online events to other MSCs, 79% indicated that they received either " A Lot of New Information/Ideas" (27%) or "Some New Information/Ideas" (52%), and 87% indicated that the information discussed during the online events was either "Very Useful" (43%) or "Somewhat Useful" (44%).

Participants were also asked to rate their satisfaction with five elements of the online events on a 5-point scale: Very Dissatisfied, Somewhat Dissatisfied, Neutral, Somewhat Satisfied, and Very Satisfied. Eighty-seven percent indicated that they were "Somewhat" or "Very Satisfied" with the quality of the materials, 84% with the organization/layout of the event website, 83% with the download speed of the web pages, 82% with the links provided to other websites, and 70% with the role of the online facilitators.

Additional analyses were conducted comparing active participants versus auditors. The differences between active participants and auditors were both small and statistically not significant for the amount of new information they acquired, the usefulness of the information they received, and the time they spent on the events, the true/false items tailored to each event, overall satisfaction with the events, and willingness to recommend the events to other MSCs. However, although non-significant, auditors did report that they gained more knowledge for all of the dimensions assessed for events two and three.

As mentioned earlier in the report, the online courses were originally designed such that there was a very clear distinction made between active participants and auditors. In reality, the differences between the two groups were very minimal. Given the lack of distinction between the two groups, it is not unexpected to find that they did not systemically differ on the majority of the dimensions assessed. Unfortunately, this limits our ability to assess with any certainty whether or not the additional components received by active participants (e.g., facilitated

discussion areas) had a more positive effect on these MSCs or whether these additional components made no difference. In light of the high level of performance and satisfaction measures across groups, we might assume that *both* groups benefited from these additional components, but further research with more precise distinction between groups is needed.

A second set of analyses compared MSCs who participated in multiple events with those who participated in only one event. In general, participation in multiple events was associated with higher levels of performance and satisfaction with the events. For example, MSCs who participated in multiple events were significantly more likely to indicate that they received more information from the events and more apt to report increases in knowledge gained ($p<.05$).

Although not significant, MSCs who participated in multiple events were also more likely to rate the usefulness of the information, the ease of navigation, the ease of use of the discussion/chat area, overall satisfaction with the event, and willingness to recommend the event to other MSCs more highly than MSCs who participated in a single event.

While the different online events are designed to be mutually exclusive of one another, there is a certain degree of overlap and a logical progression of themes from needs assessment through identifying priorities to building partnerships. The pattern of results for MSCs who participated in multiple events, especially the significant increases in information received and self-reported knowledge gain, is consistent with the cumulative nature of the different events. In addition, the format and timeframe for the events (one week with 50 active participants and an unlimited number of auditors per event) suggest that further studies examining alternative designs for continuing education web-based events for adults is warranted. These findings also suggest that it is important to encourage MSCs to participate in multiple events.

References

Bannan, Brenda and Milheim, William D. (1997). Existing Web-Based Instruction Courses and Their Design. *Web*-Based Instruction. Badrul H. Khan, ed. Englewood Cliffs, New Jersey: Educational Technology Publications.

Beasley, Robert E. and Waugh, Michael L. (1196). The Effects of Content-Structure Focusing on Learner Structural Knowledge, Acquisition, Retention, and Disorientation in a Hypermedia Environment. Journal of Research on Computing in Education, 28(3), 271-291.

Calvi, Licia. (1997). Navigation and Disorientation: A Case Study. Journal of Educational Multimedia and Hypermedia, 6(3/4),305-320.

Catledge, Lara D. and Pitcow, James E. (1995). Characterizing Browsing Strategies in the World-Wide Web. Computer Networks and ISDN Systems, 27(6), 1065-1073.

Chute, A., Thompson, M., & Hancock, B. (1999). The McGraw-Hill handbook of distance learning. New York: McGraw-Hill.

Cockburn, Andy, and Jones, Steve. (1996). Which Way Now? Analyzing and Easing Inadequacies in WWW Navigation. International Journal of Human-Computer Studies, 45(1), 105-129.

Dieberger, Andreas. (1997). Supporting Social Navigation on the World Wide Web. International Journal of Human-Computer Studies, 46(6), 805-825.

Dryoweb web-based training. (1997). [On-Line]. Available: http://www.dryoweb.com/wbt/

Ellis, Rick. (1997). Effective use of the web for education design in principles and pedagogy. [On-Line]. Available: ~rells/workshops/design"http://weber.u.washington.edu/~rells/workshops/design

Hale, C. (Ed.) (1996). Wired in style: Principles of English usage in the digital age. San Francisco: HardWired.

Formica, S.W. and Harding, W.M. Evaluation Findings for MSC Continuing Education Web Event #3: Promoting Prevention Through School-Community Partnerships. Prepared for Education Development Center, Inc., Newton, MA (USED). 2001.

Hall, Brandon. (1997). FAQ for web-based training. Multimedia and Training Newsletter. [On-Line]. Available: http://www.brandon-hall.com/faq.html

Harasim, L., Hiltz, S. R., Teles, L., & Turoff, M. (1997). Learning networks: A field guide to teaching and learning online. Cambridge, MA: MIT Press.

Harding, W.M. and Formica, S.W. Evaluation Results on the Training Workshops for Middle School Drug Prevention and School Safety Coordinators Summary Report: Overall Process and Outcome Evaluation Results. Prepared for Education Development Center, Inc., Newton, MA (USED). 2000.

Harding, W.M. and Formica, S.W. Evaluation Findings for MSC Continuing Education Web Event #1: Using Existing Data in Your Needs Assessment. Prepared for Education Development Center, Inc., Newton, MA (USED). 2001a.

Harding, W.M. and Formica, S.W. Evaluation Findings for MSC Continuing Education Web Event #2: Identifying Priorities and Strategies for Your Prevention Initiative. Prepared for Education Development Center, Inc., Newton, MA (USED). 2001b.

Harmon, Stephen. (1995). Novice Use of a Dimensional Scale of the Evaluation of the Hypermedia User Interface: Caveat Emptor. Computers in Human Behavior, 11(3/4), 429-437.

Harrison, N. (1998). How to design self-directed and distance learning programs. New York: McGraw-Hill.

Hiles, Jeanne M. and Ewing, Keith. (1997). Designing and implementing instruction on the world wide web. [On-Line]. Available: http://lrs.stcloud.msus.edu/ispi/proceeding.html.

Jones, Marshall G. and Farquhar, John D. (1997). User Interface Design for Web-Based Instruction. Web-Based Instruction. Badrul H. Khan, ed. Englewood Cliffs, New Jersey: Educational Technology Publications.

Kahle, David. Learning in cyberspace: Computer mediated communication and distance education. [Online]. Available: http://www.mit.edu:8001/afs/athena.mit.edu/user/d/j/djkahle/www/4.207/home.html.

Kahn, Badrul. (1997). Web-based instruction (WBI): What is it and why is it? Web-Based Instruction. Educational Technology Publications: Englewood Cliffs, New Jersey.

McManus, Thomas Fox. (1996). Delivering instruction on the world wide web. [On-Line]. Available: ~mcmanus/wbi.html"http://ccwf.utexas.edu/~mcmanus/wbi.html.

Ritchie, Donn C. and Hoffman, Bob. (1997). Incorporating Instructional Design Principles with the World Wide Web. Web-Based Instruction. Badrul H. Khan, ed. Englewood Cliffs, New Jersey: Educational Technology Publications.

U.S. Department of Education
Office of Educational Research and Improvement (OERI)
National Library of Education (NLE)
Educational Resources Information Center (ERIC)

NOTICE

Reproduction Basis

[X] This document is covered by a signed "Reproduction Release (Blanket)" form (on file within the ERIC system), encompassing all or classes of documents from its source organization and, therefore, does not require a "Specific Document" Release form.

[ ] This document is Federally-funded, or carries its own permission to reproduce, or is otherwise in the public domain and, therefore, may be reproduced by ERIC without a signed Reproduction Release form (either "Specific Document" or "Blanket").